

111918

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Justification for Approval of a Removal Action
at the Havertown PCP Site, Haverford Township,
Delaware County, Pennsylvania **DATE:** DEC 11 1987

FROM: James M. Seif *[Signature]*
Regional Administrator (3RA00)

TO: Dr. J. Winston Porter,
Assistant Administrator
Solid Waste and Emergency Response (WH-562A)

ISSUE

The attached CERCLA Funding Request pertains to the Havertown PCP Site located in Haverford Township, Delaware County, Pennsylvania.

An assessment and sampling performed in accordance with the National Contingency Plan by State personnel has identified a direct contact threat and a serious offsite migration threat posed by the presence of pentachlorophenol (PCP), in contaminated soils and stream waters. Recent analytical results for dioxins indicate the presence of dioxins in soil and sediments which presents a substantial threat to the public health and the environment.

BACKGROUND

Pursuant to the Delegation of Authority 144-1-A (4/16/84), amended by Section 104 (e) of the Superfund Amendments and Reauthorization Act (SARA) of 1986, which authorizes the Regional Administrator to approve CERCLA Removal actions with a total cost of less than \$2,000,000, I have approved the use of CERCLA funds in the amount of \$333,600 to mitigate the threat to public health presented by this site.

Attachments

AR100076

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: CERCLA Funding Request for the
Havertown PCP Site,
Haverford Township, Delaware County, Pennsylvania

DATE: DEC 11 1987

FROM: Robert E. Caron, Sr. On-Scene Coordinator
Emergency Response Section (3HW22)

TO: James M. Seif
Regional Administrator (3RA00)

THRU: Stephen R. Wassersug, Director
Hazardous Waste Management Division (3HW00)

I. PURPOSE

A site assessment/sampling, performed in accordance with the National Contingency Plan, has revealed a potential threat to human health and the environment at the Havertown PCP site in Haverford Township, PA. Direct human contact with pentachlorophenol (PCP) along with dioxins in soils, sediments and stream waters of Naylor's Run poses a threat to human health. Contaminated groundwater discharging into Naylor's Run from a storm sewer pipe adds to the surface water contamination. During heavy rains Naylor's Run, overflows its banks into the backyards of nearby residences adding to the offsite migration of the contaminants. While there is no surface or groundwater use in the area, there is the threat of direct contact (especially children), Naylor's Run flows through a residential neighborhood.

At this time, EPA Region III is requesting CERCLA funding in the amount of \$333,600 to repair and extend existing fencing, erect signs, improve the existing access road, place silk fabric around the full perimeter of fencing to act as a filter fence, assist State personnel with additional sampling, evaluate offsite control measures and install and maintain booms and an oil collection system. A detailed quality assurance/quality control (QA/QC) plan will be developed for the site sampling and analyses. During all phases of sampling and analyses this QA/QC plan will be stringently applied.

II. BACKGROUND

The Havertown PCP Site is located in Haverford Township, Delaware County, Pennsylvania about 10 miles west of Philadelphia. The area is characterized by several commercial establishments surrounded by a mixture of homes, schools, recreation facilities, and industrial activities.

AR100077

National Wood Preservers currently operates a wood treatment plant on site. This facility, which consists of a small plant with treatment and storage tanks, is located on approximately two acres of property. Present operating practices include the use of pentachlorophenol (PCP) and possibly other water soluble salts i.e., sodium fluoride, sodium chromate, sodium arsenate, and di-nitrophenol as preservatives for treating wood. The process is carried out by loading preconditioned wood into vessels (treatment tanks), adding chemicals, and then applying pressure to force the preservatives into the wood cellulose. Excess chemicals are returned to storage tanks for reuse.

National Wood Preservers, Inc., was founded in 1947. During the period from 1947-1963 the National Wood Preservers facility deposited waste material into a nearby 25 foot deep well. The wastes contained pentachlorophenol (PCP) and oil used in treating wood products. Subsequent subsurface contamination of the groundwater has occurred. It has been estimated that approximately 1 million gallons of the PCP sludge has been pumped down the shallow well. A concrete sewer line has intercepted the subsurface sludge flow and is releasing it directly to Naylor's Run.

In 1976 the United States Environmental Protection Agency (USEPA) Region III initiated cleanup activities under Section 311 of the Clean Water Act. Cleanup activities occurred in two phases. The first phase established containment operations at Naylor's Run. Filter fences were installed to remove PCP and oil from the surface water. These fences were located just downstream from the out-flows of a 24-inch storm sewer pipe and a 12-inch sanitary sewer pipe. The second phase was carried out by the Emergency Response Team from the USEPA. Groundwater collection and treatment, and cement grouting of the two sewer pipes was attempted. The sanitary sewer was successfully sealed; however, contaminated groundwater still exists but the discharges into Naylor's Run from the 24-inch storm sewer pipe still occur.

In 1982 the USEPA Region III ended containment operations in Naylor's Run. National Wood Preservers agreed to maintain in-stream treatment measures following a CERCLA notice letter dated December 18, 1981.

FIT III has conducted surface water and sediment/solid sampling of Naylor's Run in the past. More recently in August of 1987, Pennsylvania Department of Environmental Resources (PADER) personnel have collected 28 solid samples (13 sediments, 15 soils) and 20 water samples (10 surface, 10 groundwater) and had them analyzed for total tetra through octa chlorinated dibenzodioxins and and dibenzofurans.

Two NUS maps have been included with this funding request. Figure 1 shows the site location. Figure 2-2 was included to show detailed features such as the relationship of the National Wood Preservers, Inc. to residences, nearby businesses, the storm sewer and Naylor's Run.

AR100078

III. THREAT

Numerous polyaromatic hydrocarbons (PAHs) were found in soil samples at the Havertown PCP Site as a result of collection and analyses of samples in 1985. Among the PAHs found in the soil samples were benzo (a) anthracene, chrysene, benzo (k) fluoranthene and benzo (g,h,i) perylene. PAHs are often formed during the combustion of hydrocarbon materials. Many PAHs are known or suspect human carcinogens.

Levels as high as 22,000 ppb of pentachlorophenol (PCP) were found in soils sampled in 1985. PCP has been widely used as a wood preservative since 1936 in this country. They first started using PCP at the Havertown PCP site in 1947 when the plant opened. It demonstrates high acute toxicity, and has been demonstrated to cause neurotoxicity in dogs, sheep and rats. PCP can be absorbed through skin and eye when contacted. Sufficient exposure can impair the respiratory system, lead to convulsions, collapse and even death. PCP is highly toxic whether it is inhaled or absorbed through skin or eye tissue.

Groundwater, surface water, sediments, and soils were sampled in August 1987 for isomers of dioxin and isomers of dibenzofurans. 2,3,7,8-TCDD is an extremely toxic chemical in animal species. Mutagenic, carcinogenic, teratogenic, and embryotoxic effects have all been demonstrated in test animals. There were other dioxin congeners present. Although dioxin congeners are much less toxic than 2,3,7,8-TCDD, higher levels of these congeners demonstrate similar health effects. Dibenzofurans, like the dioxin congeners, are extremely toxic in animal species. A soil sample in the southern portion of the plant had 2,3,7,8-TCDD present at 12 ppb. Another soil sample was found to have 3,100 ppb dibenzofurans present.

These are many homes within a short distance of the Havertown PCP Site. There are an estimated 2,000 people who live within 1/4 mile of the site. Many children have been observed playing in Naylor's Run. PCPs have been found in sediment in Naylor's Run, and dioxins have been found in on-site soil samples.

IV. ENFORCEMENT

See attachment: Confidential Enforcement Status

V. CONTRIBUTION TO REMEDIAL PERFORMANCE

As part of the removal action at the Havertown PCP Site, the scope of work outlined in this action memorandum is consistent with Section 104 (b) of SARA, which requires that removal actions contribute to the performance of long-term remedial action. Through this removal action, EPA will mitigate the threat and stabilize off-site surface migration of contaminants. In addition the sampling and analyses performed will assist EPA Remedial in their subsequent work. These removal actions do indeed "contribute to efficient performance" as outlined in section 104 (b) of SARA.

ART00079

VI. PROPOSED PROJECT AND COSTS

The OSC proposes to stabilize the site and prevent additional off-site migration. This will be accomplished in four steps. The first step will involve repair and extension of additional fencing along with posting of warning signs. Silk fabric will also be placed around the fence perimeter to control sediment migration. The second step will involve assisting the PA Department of Environmental Resources (PADER) in both sampling and analyses of an estimated 200 samples. This analytical information will be used for the extent of contamination study. A detailed QA/QC plan will be developed and applied throughout sampling and analyses. The third step will consist of a thorough evaluation of off-site control measures. This will include investigation of methods to control groundwater and surface water contamination. The fourth step will evolve from the findings of the prior step. At present, this will include installation of an oil/water separator and two underflow dams.

The following estimated costs were developed based upon an assumption that steps one through three will require two months to complete. It is also estimated that step four will require 12 months of operation and maintenance for the oil/water separator and the two underflow dams. After this time period, it is expected that EPA Remedial will assume responsibilities and activities on-site.

Proposed costs are as follows:

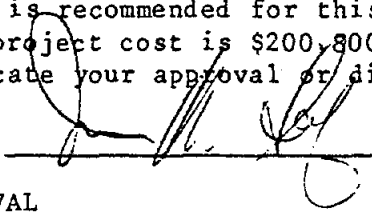
I. EXTRAMURAL	
ERCS	
Labor (2 RTs, 45 days)	\$27,000
Fencing (1,500 feet at \$10/foot)	\$15,000
Rental of oil/water separator (12 months at \$2,000/month)	\$24,000
Construction materials for gravel road and 2 underflow dams	\$25,000
Sample analyses for dioxins, dibenzofurans, PCP (50 QA/QC samples at \$2,000/sample)	<u>\$100,000</u>
ERCS Subtotal	\$191,000
10% contingency	<u>\$19,100</u>
ERCS TOTAL	<u>\$210,100</u>
TAT	<u>\$60,000</u>
TOTAL EXTRAMURAL	<u>\$270,100</u>
II. INTRAMURAL	
EPA	<u>\$20,000</u>
TOTAL INTRAMURAL	<u>\$20,000</u>
III. EXTRAMURAL & INTRAMURAL	
EXTRAMURAL & INTRAMURAL COSTS	\$290,100
15% EPA HQ	<u>\$ 43,500</u>
TOTAL ESTIMATED COSTS	<u>\$333,600</u>

AR100080

VII. REGIONAL RECOMMENDATION

The conditions at the Havertown PCP site meet the criteria set forth in the National Contingency Plan, Section 300.65 for a removal. Your approval is recommended for this removal request. The estimated total removal project cost is \$200,800 of which \$154,600 is extramural. You may indicate your approval or disapproval by signing below.

APPROVAL



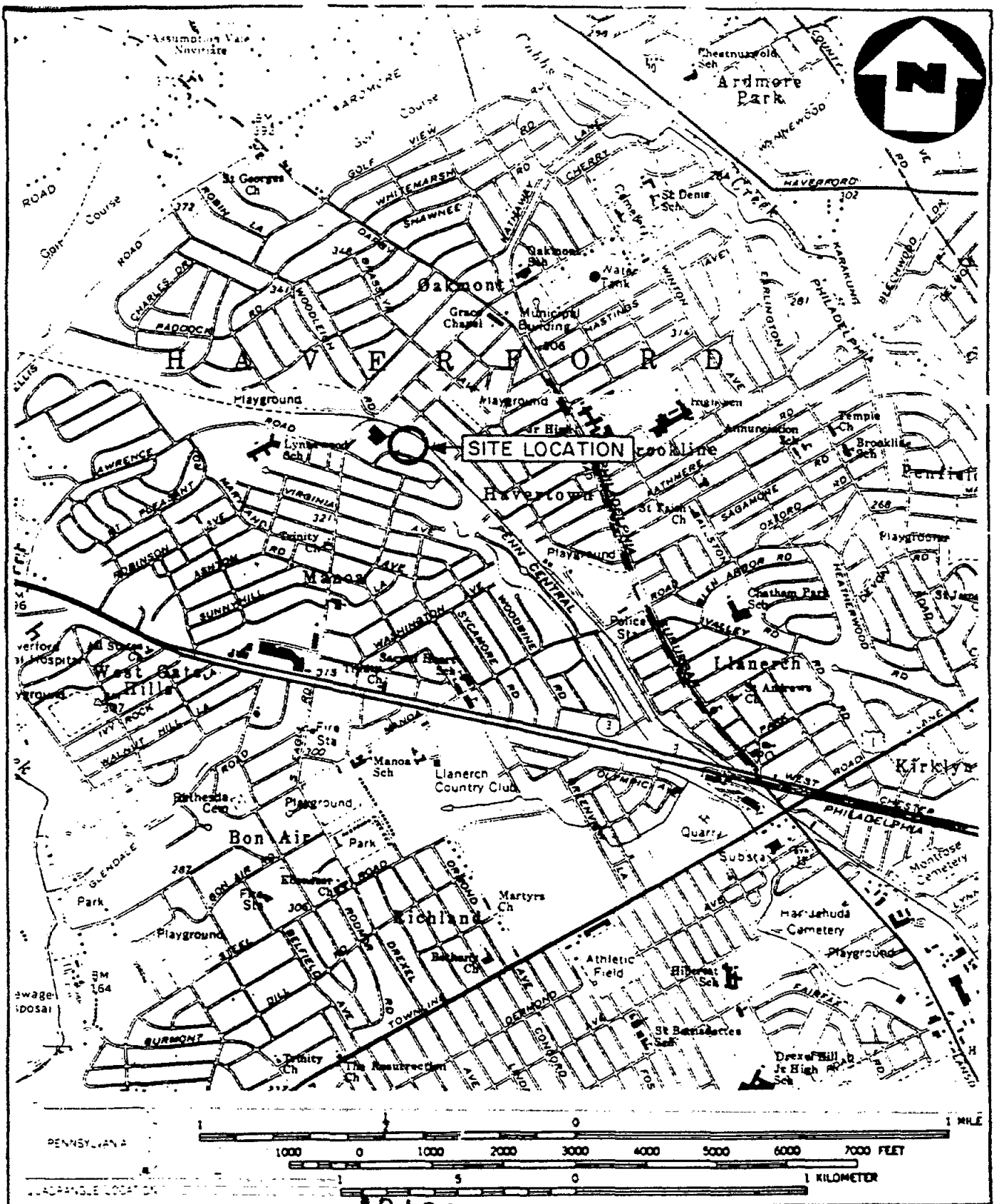
DATE

12/11/87

DISAPPROVAL

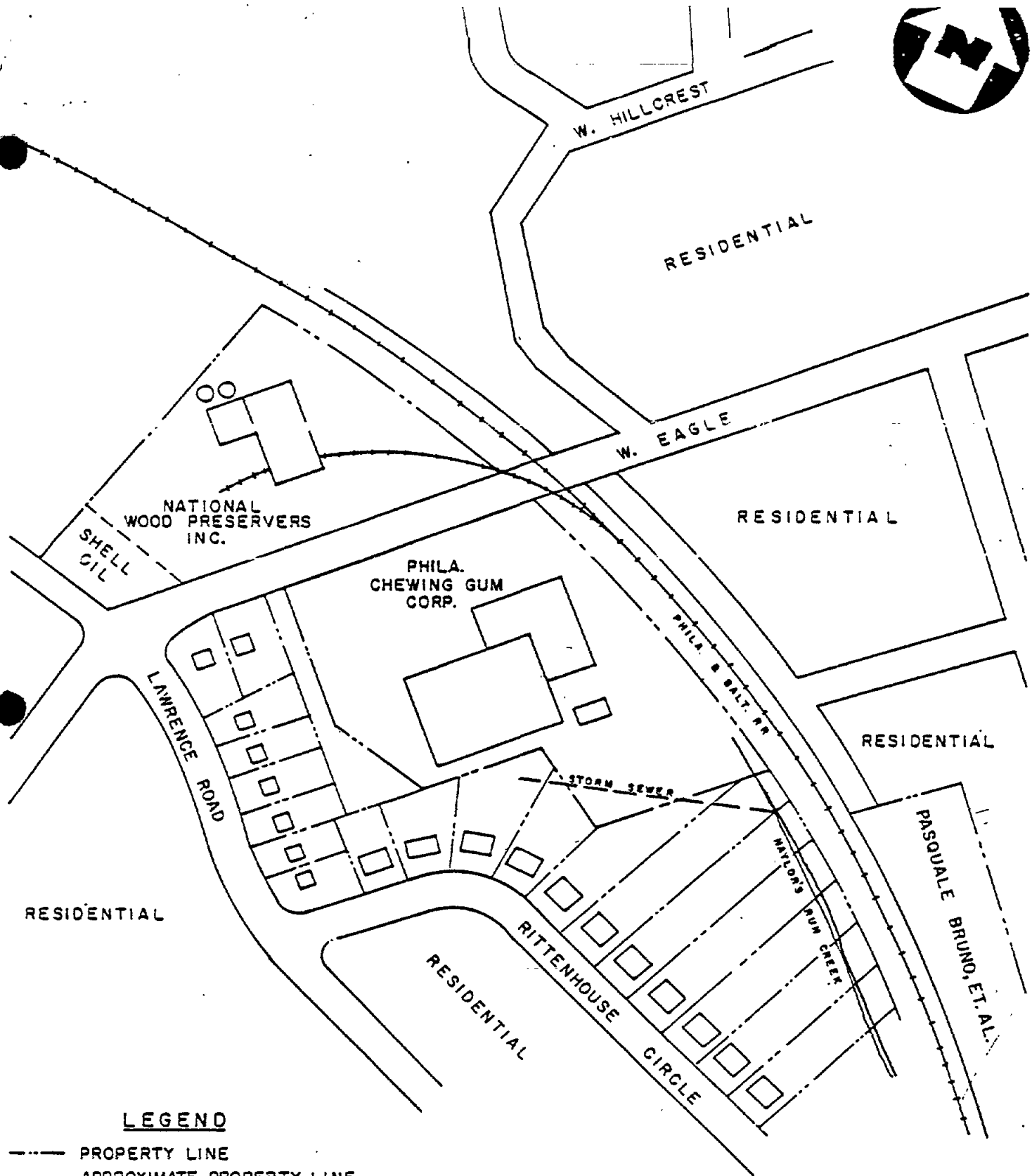
DATE

AR100081



SOURCE: (7.5 MINUTE SERIES) USGS LAND COVER PHOTOGRAPH

SITE LOCATION MAP
HAVERTOWN PCP, HAVERTOWN, PA.
 SCALE 1:24000



LEGEND

- PROPERTY LINE
- - - - - APPROXIMATE PROPERTY LINE

FIGURE 2-2

AR/00083
STUDY AREA MAP
HAVERTOWN PCP SITE, HAVERFORD TWP., PA
SCALE: 1"=200'



To: ERD/OERR (EPA5511)
To: J. LUFFY (EPA9314)
To: V. ZENONE (EPA9348)
To: T. MASSEY (EPA9374)
From: V. ZENONE (EPA9348) Delivered: Sat 12-Dec-87 15:52 EST Sys 163 (10)
Subject: POLREP 1 HAVERTOWN PCP SITE, HAVERFORD TWP, DELAWARE CO., PA
Mail Id: IPM-163-871212-142830708

POLREP # 1
HAVERTOWN PCP SITE
HAVERFORD TWP., DELAWARE CO. PA.

ATTN: ROBERT CARON AND TIM FIELDS
CC: STEVE JARVELA
PASS TO: DOUG LORENZEN, PADER

- I. SITUATION (1700 HOURS, FRIDAY DECEMBER 11, 1987)
- A. A SITE ASSESSMENT/SAMPLING, PERFORMED IN ACCORDANCE WITH THE NATIONAL CONTINGENCY PLAN, HAS REVEALED A POTENTIAL THREAT TO HUMAN HEALTH AND THE ENVIRONMENT AT THE HAVERTOWN PCP SITE IN HAVERFORD TOWNSHIP, PA. THE HAVERTOWN PCP SITE IS A NPL SITE UNDERGOING CLEANUP UNDER STATE LEAD. DIRECT HUMAN CONTACT WITH PENTACHLOROPHENOL (PCP) ALONG WITH DIOXINS IN SOILS, SEDIMENTS AND STREAM WATERS OF NAYLOR'S RUN POSES A THREAT TO HUMAN HEALTH. CONTAMINATED GROUNDWATER DISCHARGING INTO NAYLOR'S RUN FROM A STORM SEWER PIPE ADDS TO THE SURFACE WATER CONTAMINATION. DURING HEAVY RAINS NAYLOR'S RUN, OVERFLOWS ITS BANKS INTO THE BACKYARDS OF NEARBY RESIDENCES ADDING TO THE OFFSITE MIGRATION OF THE CONTAMINANTS. WHILE THERE IS NO SURFACE OR GROUNDWATER USE IN THE AREA, THERE IS THE THREAT OF DIRECT CONTACT (ESPECIALLY CHILDREN), AS NAYLOR'S RUN FLOWS THROUGH A RESIDENTIAL NEIGHBORHOOD.
- B. ON TUESDAY DECEMBER 8, 1987 A CONFERENCE CALL INVOLVING EPA, STATE OF PENNSYLVANIA, ATSDR AND TAT PERSONNEL WAS HELD FROM 1010 HOURS TO 1230 HOURS. AS A RESULT OF THIS CONFERENCE THE OSC DETERMINED THAT A THREAT TO THE PUBLIC HEALTH AND ENVIRONMENT EXISTS.
- C. EPA REGION III REGIONAL ADMINISTRATOR HAS APPROVED (THIS DATE) A CERCLA FUNDING REQUEST IN THE AMOUNT OF \$333,600 TO REPAIR AND EXTEND EXISTING FENCING, ERECT SIGNS, IMPROVE THE EXISTING ACCESS ROAD, PLACE SILK FABRIC AROUND THE FULL PERIMETER OF FENCING TO ACT AS A FILTER FENCE, ASSIST STATE PERSONNEL WITH ADDITIONAL SAMPLING, EVALUATE OFFSITE CONTROL MEASURES AND INSTALL AND MAINTAIN BOOMS AND AN OIL COLLECTION SYSTEM. A DETAILED QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PLAN WILL BE DEVELOPED FOR THE SITE SAMPLING AND ANALYSES. DURING ALL PHASES OF SAMPLING AND ANALYSES THIS QA/QC PLAN WILL BE BRINGENTLY APPLIED.
- 48100084

- D. THE ERCS CONTRACT MECHANISM HAS BEEN ACTIVATED BY THE OSC UNDER CONTRACT #6801-7445, DELIVERY ORDER # 7445-03-038, DCN #RVD44, ACCOUNT # 8FTA03W854.
- E. PERSONNEL ON SCENE (12-11-87) EPA-4, TAT-4, PADER-4, DUH-1, ATSDR-1.
- F. WEATHER: SUNNY AND COOL, TEMP. IN LOW 50'S.

II. ACTIONS TAKEN

- A. ON THURSDAY DECEMBER 10, 1987, EPA AND STATE PERSONNEL CONDUCTED A DOOR-TO-DOOR NOTIFICATION TO THE RESIDENTS SURROUNDING THE SITE. A LETTER FROM DER WAS HANDED TO THE RESIDENTS AND PERMISSION TO COLLECT SOIL SAMPLES FROM THEIR PROPERTY WAS REQUESTED.
- B. A PRESS CONFERENCE WAS HELD AT THE HAVERFORD TOWNSHIP BUILDING (2325 DARBY RD, HAVERTOWN) FROM 1005 HOURS TO 1050. REPRESENTATIVES FROM EPA, ATSDR, STATE OF PENNSYLVANIA, TAT, HAVERFORD TWP., SUPERINTENDANT OF SCHOOLS AND LOCAL NEWS MEDIA WERE IN ATTENDANCE - APPROXIMATELY 25 IN ALL.
- C. AFTER THE PRESS CONFERENCE EPA, TAT, STATE AND TOWNSHIP PERSONNEL TOURED THE PERIMETER OF THE SITE AND SURROUNDING AREA. LOCAL NEWS MEDIA (CHANNEL 3) JOINED THE WALK. THE OSC BRIEFED ALL PERSONNEL OF THE PLANNED FUTURE ACTIVITIES.
- D. AT THE DIRECTION OF THE OSC, TAT PLACED BANNERGUARD ALONG ONE SIDE OF NAYLOR'S RUN CREEK WHICH RUNS ALONG THE BACK YARDS OF NEARBY RESIDENCES AND PERFORMED PHOTODOCUMENTATION OF THE SITE AND SURROUNDING AREA.
- E. THE OSC ACTIVATED THE ERCS MECHANISM, AND DIRECTED THE CONTRACTOR TO BE ON SITE AT 1000 HOURS 12/12/87 TO INITIATE CONTAINMENT MEASURES.

III. FUTURE PLANS

- A. TAT AND PADER PERSONNEL TO BEGIN COLLECTION OF SOIL SAMPLES FROM THE YARDS OF SURROUNDING RESIDENCES AND SOIL, SEDIMENT AND WATER SAMPLES FROM OTHER AREAS SURROUNDING AND NEAR THE SITE ON SATURDAY DECEMBER 12TH. THE COLLECTED SAMPLES WILL BE HAND DELIVERED BY STATE PERSONNEL TO THE PADER STATE LABORATORY IN HARRISBURG. ALL SAMPLES WILL BE ANALYZED FOR PENTACHLOROPHENOL (PCP). IF THE RESULTS ARE POSITIVE THESE SAMPLES WILL BE SENT TO ANOTHER LAB WHICH SPECIALIZED IN DIOXIN ANALYSIS.

AR100085

B. A PUBLIC MEETING IS TO BE HELD AT 7:00 PM ON MONDAY
DECEMBER 14, 1987 AT THE LYNNEWOOD SCHOOL LOCATED ON
LAWRENCE ROAD IN HAVERTOWN.

ROBERT CARON, SR. OSC
VINCENT E. ZENONE, OSC
US EPA REGION III, PHILA. PA.

AR100086